

REMARKS

In view of the above amendments and following remarks, reconsideration of the objection and rejection, and further examination are requested.

Claims 1-4 are pending in this application and are amended herein. No new matter has been added.

The drawings were objected to under MPEP § 608.02(g). Specifically, the Examiner asserts that Figure 8 should be labeled as "Prior Art" because only that which is old is illustrated. Submitted herewith is a replacement drawing sheet of Figure 8 labeled as "Prior Art." No new matter has been added. As a result, withdrawal of the objection to the drawings is respectfully requested.

The specification and abstract have been carefully reviewed and revised to make grammatical and idiomatic improvements in order to aid the Examiner in further consideration of the application. A substitute specification and abstract including the revisions have been prepared and are submitted herewith. No new matter has been added. Also submitted herewith are marked-up copies of the substitute specification and abstract indicating the changes incorporated therein.

Claims 1-4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimizu et al. (U.S. Patent No. 6,466,186) (hereinafter referred to as "Shimizu").

The above-mentioned rejection is submitted to be inapplicable to amended claim 1 for the following reasons.

Claim 1 recites a method of driving a plasma display panel including, in part, dividing one field period into a plurality of sub-fields, each comprising an initializing period wherein an initializing discharge is caused with use of a ramp voltage waveform or a gradually changing voltage waveform, a writing period, and a sustaining period. Moreover, the method of claim 1 recites providing a first sustaining period and a second sustaining period in a sustaining period of at least one sub-field, a sustain pulse in the first sustaining period that has a first leading edge duration, and a sustain pulse in the second sustaining period that has a second leading edge duration such that the second leading edge duration is shorter than the first leading edge duration, and disposing the second sustaining period at least at an end of the sustaining period.

Submission of Replacement Formal Drawings

Submitted herewith is a replacement formal drawing sheet for Figure 8 in order to label it as "Prior Art". Approval and entry of this replacement drawing sheet is respectfully requested.

Shimizu discloses a drive method of a plasma display panel (PDP) which causes a sub-field to luminesce with predetermined gradations using “n” sustaining pulses. The method is characterized (see Figs. 7 and 8, and col. 8, lines 5-15) in that the times t1 to t2, t5 to t6, and t9 to t10 describe “the times from the start of charge recovery of the sustaining pulses to the fixation to the sustaining potential, and the times t3 to t4, t7 to t8, and t11 to t12 describe the times to fixation to the ground potential and are made variable.”

Figure 8 of Shimizu illustrates a drive method of the PDP in “which the time from the start of charge recovery of the sustaining pulse to the fixation to the sustaining potential, and the time to the fixation to the ground potential, are made successively longer from the leading sustaining pulse toward the n-th sustaining pulse.” (col. 8, lines 16-22) “During the sustaining period, sustaining discharge is executed sequentially from the leading edge toward the n-th sustaining pulse by gradually increasing the times from the start of charge recovery to the clamping to the sustaining potential and to the ground potential.”(col. 8, lines 42-46)

In contrast to the invention of claim 1, Shimizu does not disclose providing a sustain pulse in a first sustaining period that has a first leading edge duration, and a sustain pulse in a second sustaining period that has a second leading edge duration such that the second leading edge duration is shorter than the first leading edge duration. Instead, Shimizu discloses the leading edge durations (i.e., t1-t2, t5-t6, and t9-t10) of subsequent sustaining pulses having successively longer durations. Moreover, there is no disclosure or suggestion in Shimizu to modify the leading edge durations of the sustaining pulses such that a subsequent leading edge duration has a shorter duration.

In other words, Shimizu does not disclose dividing one field period into a plurality of sub-fields, each comprising an initializing period where an initializing discharge is caused with use of a ramp voltage waveform or a gradually changing voltage waveform, a writing period, and a sustaining period. Moreover, Shimizu does not disclose providing a first sustaining period and a second sustaining period in a sustaining period of at least one sub-field, a sustain pulse in the first sustaining period that has a first leading edge duration, and a sustain pulse in the second sustaining period that has a second leading edge duration such that the second leading edge duration is shorter than the first leading edge duration, and disposing the second sustaining

period at least at an end of the sustaining period, as recited in claim 1.

The Examiner asserts that the period from t7-t8 corresponds to the first sustaining period and that the period from t11-t12 corresponds to the second sustaining period. Moreover, the Examiner appears to assert that the period from t7-t8 also corresponds to the first leading edge and that the period from t11-t12 also corresponds to the second leading edge. It does not appear that the Examiner's interpretation of Shimizu discloses each and every feature of original claim 1, or of amended claim 1. However, as discussed above, leading edge durations of Shimizu increase successively, and thus do not constitute a sustain pulse in a first sustaining period that has a first leading edge duration, and a sustain pulse in a second sustaining period that has a second leading edge duration such that the second leading edge duration is shorter than the first leading edge duration where the second sustaining period is disposed at least at an end of the sustaining period.

For at least the reasons set forth above, it is believed clear that claim 1 is not anticipated by Shimizu. Furthermore, it is submitted that an ordinary artisan would have no reason to modify the art of record in such a manner, as to result in, or otherwise render obvious, the invention of claim 1.


Because of the above-mentioned distinctions, it is believed that claim 1, and claims 2-4 depending therefrom, are patentable over the references relied upon in the rejection. Therefore, it is submitted that claims 1-4 are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, all of the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action are respectfully solicited.

Should the Examiner believe there are any remaining issues that must be resolved before this application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Kenji OGAWA et al.

By: 
Kevin McDermott
Registration No. 48,113
Attorney for Applicants

KM/JRF/km
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
December 6, 2007